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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/965,072	09/27/2001	John Barry Fitzgerald	57.0373	2697

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Intellectual Property Law Department
Schlumberger-Doll Research
Old Quarry Road
Ridgefield, CT 06877-4108

EXAMINER

GABOR, OTILIA

ART UNIT

PAPER NUMBER

2878

DATE MAILED: 05/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/965,072

Applicant(s)

FITZGERALD, JOHN BARRY

Examiner

Otilia Gabor

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The papers filed on 01/23/2002 (certificate of mailing dated 11/16/2001) have not been made part of the permanent records of the United States Patent and Trademark Office (Office) for this application (37 CFR 1.52(a)) because of damage from the United States Postal Service irradiation process. The above-identified papers, however, were not so damaged as to preclude the USPTO from making a legible copy of such papers. Therefore, the Office has made a copy of these papers, substituted them for the originals in the file, and stamped that copy:

COPY OF PAPERS ORIGINALLY FILED

If applicant wants to review the accuracy of the Office's copy of such papers, applicant may either inspect the application (37 CFR 1.14(d)) or may request a copy of the Office's records of such papers (*i.e.*, a copy of the copy made by the Office) from the Office of Public Records for the fee specified in 37 CFR 1.19(b)(4). Please do **not** call the Technology Center's Customer Service Center to inquiry about the completeness or accuracy of Office's copy of the above-identified papers, as the Technology Center's Customer Service Center will **not** be able to provide this service.

If applicant does not consider the Office's copy of such papers to be accurate, applicant must provide a copy of the above-identified papers (except for any U.S. or foreign patent documents submitted with the above-identified papers) with a statement that such copy is a complete and accurate copy of the originally submitted documents. If applicant provides such a copy of the above-identified papers and statement within **THREE MONTHS** of the mail date of this Office action, the Office will add the original mailroom date and use the copy provided by applicant as the permanent Office record of the above-identified papers in place of the copy made by the Office. Otherwise, the Office's copy will be used as the permanent Office record of the above-identified papers (*i.e.*, the Office will use the copy of the above-identified papers made by the Office for examination and all other purposes). This three-month period is not extendable.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 7-11, 14-15, 17-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Gadeken (U. S. Patent 6037585).

Gadeken discloses an apparatus and method for determining the radioactive scale distribution using a gamma radiation logging technique whereby the position and quantity of scale present in the formation and near the borehole is calculated in-situ in a logging well system. The apparatus comprises:

- A test formation 10 including an annular formation 12, a cement annulus 14, a casing 16 and a central borehole 18 containing
 - o a gamma radiation detector that detects the gamma rays emitted from the radioactive isotopes present in the scale and also the gamma rays emitted from the radioactive tracers present in the well. The gamma detector will generate a gamma-ray spectrum of the isotopes present in the scale in real-time;
 - o a signal processor which is positioned above ground and which obtains in real-time the coded spectra from the gamma detector and which spectroscopically analyses the spectrum and based on the finding it calculates the quantity, the distribution and the concentration (i.e. abundance) of each isotope present in the scale. Based on these calculations the position and the quantity of the scale are generated.

See Figs. 1-3.

The detector is stationary and is permanently installed in the borehole 18, which is cemented to the well borehole casing through the cement annulus 14. The

measurements are done on the scale located in the well formation or around the downhole (production well) and the main component of the scale is radium. The spectrum is obtained in-situ periodically. The amount of radium originally deposited as a tracer is also found.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 4-6, 13, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gadeken.

Regarding claims 4, 5 and 16 Gadeken fails to explicitly disclose that the permeability of the scale is determined, however since the concentration, the amount and distribution of its components as well as the concentration, amount and position of the scale itself is calculated determining the permeability of the scale it's an obvious step to take when important parameters of the scale are being determined, for it allows for determination of the actual formation permeability.

Regarding claim 6 Gadeken uses as an example a scale with radium as the primary component however he does not limit the method to a specific type of scale. As such taking the spectroscopic measurements on scale that has barium as the primary component would have been obvious to one of ordinary skill in the art, for it is well

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known in the art that a type of scale that forms in wells has barium as the primary component.

Regarding claim 13 Gadeken discloses that the spectra is taken periodically, but he does not specify the time period as every ten minutes, however taking the spectra every ten minutes would have been obvious to one of ordinary skill in the art at the time the invention was made since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 220 F.2d 454, 105 USPQ 233, 235 (CCPA 1955).

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gadeken and further in view of Seidner (U. S. Patent 4856584).

Gadeken uses a preferred method where the gamma detector is positioned in the downhole below ground, however since he does not limit the configuration of the system positioning the gamma detector above ground would have been obvious to one of ordinary skill in the art at the time the invention was made since as disclosed by Seidner in order to monitor the downhole parameters such as scaling the gamma detector 16 can be conventionally positioned above the ground.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Tubel et al. (U. S. Patents 6531694, 6268911, 6281489).


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Otilia Gabor whose telephone number is 703-305-0384. The examiner can normally be reached on Monday-Friday between 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on 703-308-4852. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

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May 2, 2003


CONSTANTINE HANNAHER
PRIMARY EXAMINER
GROUP ART UNIT 2878